uniden®

Bearcat®

UBC 50XL

HAND HELD PROGRAMMABLE SCANNER

- 10 CHANNELS
- 8 BAND COVERAGE
- CRYSTAL FREE
- CUSTOM ANTENNA
- AUTOMATIC LOCKOUT
- TRACK TUNING
- DIRECT CHANNEL ACCESS

SANTRONIC
AGENCIES PTY. LTD.

OPERATING INSTRUCTIONS

Introduction

Welcome to the world of computerized radio scanning. The Uniden® Bearcat® 50XL is the result of years of research and development, and incorporates many unique, state-of-the-art design concepts. Microelectronics allows so many sophisticated features to be included in such a small, stylish unit. The Uniden® Bearcat® 50XL uses the most recent technological advances to satisfy the.highest performance standards that can be achieved in a hand held unit. The custom integrated circuits, microprocessor, liquid crystal display, and other components have been designed to give the Uniden® Bearcat® 50XL high quality performance while maintaining low battery drain.

Uniden, one of the world leaders in radio scanners, has designed and manufactured this unit to give you years of trouble free use. We are sure you will be proud to own the Uniden® Bearcat® 50XL, and to insure that you get the most out of all the features, please read this operating guide completely before using your scanner.

WARNING
UNIDEN DOES NOT REPRESENT THIS UNIT TO BE **WATER-PROOFED.** TO REDUCE THE RISK OF ELECTRICAL SHOCK, FIRE HAZARD, OR DAMAGE TO THE UNIT, DO NOT EXPOSE TO RAIN OR MOISTURE.

For future reference, write in the model number and serial number below. You will find them on the back of the unit.

Model No. _____ Serial No. _____
Purchased from: _____ Date _____

Unpacking

Carefully remove the unit from the shipping carton and check the contents against the following list:

- Uniden® Bearcat® 50XL
- Belt Clip
- Flexible Antenna
- Battery Holder
- Operating Guide (read it and save)

If any of these items are missing or if there are signs of physical damage, DO NOT attempt to operate the unit. Notify your dealer immediately.

NOTE: Keep the shipping carton and packing materials, as well as all the printed material. This carton serves as an excellent method to transport your new scanner for service or any other reason.

Installation

Please read the following instructions carefully and completely before operating your scanner.

Batteries

Open battery compartment by pressing on battery door where indicated and slide off. Install 5 AA size batteries in the separate holder. Be sure that the + and − terminals of the batteries are properly installed. Improper installation may result in damage to your unit. **Set the battery charger switch to the appropriate position – NI-CAD.BATT. for nickel cadmium batteries, REG. ALK.BATT for other batteries.** Replace the battery compartment door by sliding it back into place.

Battery Charger Switch (inside the battery compartment)

This switch renders a battery recharger inoperable in the REG. ALK. BATT. position. Keep it in this position when using regular or alkaline batteries. In the NI-CAD. BATT. position, it makes possible the recharging of NiCad batteries.

Rechargeable Battery

You can purchase an optional NiCad battery from your local dealer or from Uniden. The rechargeable battery fits into the battery compartment and also comes with a battery charger. To recharge NiCad batteries in the receiver, plug an external adaptor/charger into the EXT PWR jack on the side of the unit. Plug the charger into a standard AC outlet. To fully charge NiCad batteries, leave the adaptor/charger connected for 10 to 18 hours. You can operate the unit while the NiCad batteries are being recharged.

Disconnect the adaptor/charger when recharging is complete. Also disconnect the adaptor/charger from the wall outlet during a power failure.

WARNING: DO NOT ATTEMPT TO RECHARGE NON-RECHARGEABLE BATTERIES! Before attempting to recharge batteries, open battery compartment and check the type of batteries installed. Recharge only the Nickel Cadmium rechargeable battery designed for this unit. Any other rechargeable battery will not work properly.

External power jack: Use only an optional AC adaptor or PS-001 external power plug.

Any other AC adaptor or external power plug having over voltage or reversed polarity, may create overheating or damage to circuitry.

Battery Replacement

Whenever you replace your batteries, you must turn the radio off and immediately replace them with new batteries to avoid memory loss.

Antenna Installation

Insert the connector end of the flexible antenna provided into the receptacle on top of the unit and finger tighten.

An external antenna may be helpful in fringe areas. Always use 50-70 ohm coaxial cable for lead-in. For lengths in excess of 50 feet, RG8AU low-loss foam dielectric coax is recommended. Your scanner is equipped with a standard BNC connector. You may need an adapter (optional) or other type of mating plug for proper connection.

Controls and Functions

Top Panel Features (Figure 1)

1. **On/Off Volume Control:** Top mounted rotary control turns the receiver on and off, and adjusts the volume.
2. **Squelch:** Top mounted rotary control is used to silence background noise. The radio should be squelched (silent) when no signal is present. Turn the control counterclockwise to receive more distant (weaker) signals.
3. **Antenna Connector:** BNC connector for custom flexible antenna.
4. **Earphone Jack:** Connect earphone for private listening. When earphone is connected, main speaker is disconnected.

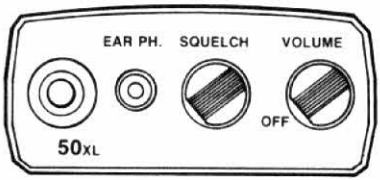


Figure 1

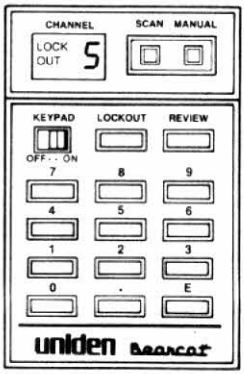


Figure 2

Front Panel Features (Figure 2)

1. **Liquid Crystal Display:** The LCD shows channel number, frequency (by displaying each digit consecutively), and indicates the "LOCKOUT" function.
2. **Keypad Lock:** Locks the keypad to avoid accidental entry or misprogramming. (SCAN and MANUAL only remain operable.)

SCAN Press to start scanning all active channels.

MANUAL Stops the scan function, steps scanner through channels in sequence, and allows direct channel access.

LOCKOUT Locks out the reception of signals on any selected channels while scanning only.

REVIEW Press to see the frequency programmed in each channel. All digits of the frequency will be shown in sequence.

1 Numeric keys 0 Through 9 and decimal point . are used to program frequencies. E enters frequencies to any of the ten channels.

Operation

Liquid Crystal Display

The Uniden® Bearcat® 50XL is equipped with a custom designed liquid crystal display to indicate channel number, frequency and lockout mode. All LCDs have a preferred viewing angle where the display contrast is maximum. The best viewing angle depends on design consideration, temperature and battery condition. Optimum viewing of the Uniden® Bearcat® 50XL is achieved by holding the unit at about 45 degrees. This also provides the best position for using the keypad.

CAUTION: Because of inherent limitations, liquid crystal displays should not be subject to extremes of temperature or humidity. If the unit is exposed to temperatures below —20°C (—5°F) or above +60°C (+140°F), the display may temporarily cease to function properly, and in some cases permanent damage may result. It is, therefore, recommended that the radio not be subjected to extreme conditions, such as a closed automobile in direct sunlight or continuous sub-zero temperatures.

Operation

Now that you are familiar with the controls and their functions, you are ready to use your scanner. The following instructions illustrate the operation of your Uniden® Bearcat® 50 XL. Please read each section thoroughly before attempting to program your scanner. Each section explains a function and then shows the key strokes involved in that function.

Keypad Lock

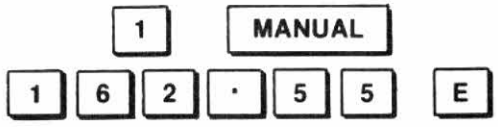
Located on the front of the unit is the keypad lock switch. This switch turns the keypad on or off. Whenever you operate your scanner, this switch must be in the "ON" position in order for the keypad to work. After all programming and operations are complete, turn this switch to the "OFF" position to avoid any misprogramming or accidental entry. (SCAN and MANUAL only remain operable.)

Programming Your Scanner

Turn the unit on and press [MANUAL] key to remove scan mode, then press the [1] key followed by the [MANUAL] key. This will bring the scanner to channel 1 in the manual mode. Press the number keys for the desired frequency. Remember to press the [·] key whenever there is a decimal point in the frequency. A decimal point is indicated in the frequency as a "—". As each key is pressed, the display will show that digit. If you forget the previous digits pressed, press the [REVIEW] key to review the frequency at any time to confirm that it is correct. Press the [E] key to enter that number into channel 1. Press the [MANUAL] key to advance to channel 2.

Operation

1. To program 162.550 into channel 1:



(Final zeros to the right of the decimal point will be entered automatically.)

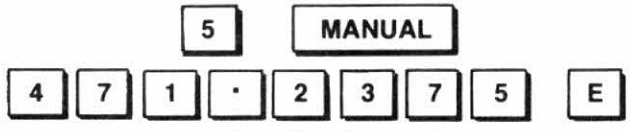
REVIEW

The display will show the frequency one digit at a time and then show channel 1.

1-6-2---5-5-0--1

CHANNEL

2. To program 471.2375 into channel 5:



(Rounded off to 3 places)

REVIEW

The display will show:

4-7-1---2-3-7--5

CHANNEL

If you attempt to enter a frequency outside the range of the Uniden® Bearcat® 50XL, the display will show an "E". If this ever happens, simply enter the correct number. You may omit the decimal point when entering frequencies in the VHF high band (136-174 MHz) and UHF (406-512 MHz).

The Uniden® Bearcat® 50XL has been designed to automatically enter trailing zeros on these bands. On *LOW BAND (66-88 MHz), YOU MUST PRESS THE DECIMAL POINT* or an "E" will appear.

When first turned on after purchase or after batteries have been removed, a test frequency will be found in each of the channels. When you program your own frequencies, these test frequencies will be erased until power is completely lost.

Squelch

The squelch function controls the sensitivity of the receiver. It adjusts the level at which the scan mode will stop to receive a transmission on any frequency. Rotate the "SQUELCH" control counterclockwise until you hear background noise and then turn it back clockwise until the noise is silenced. this will set the scanner to receive any transmission above the level of background noise. You can adjust the squelch level to pick up more distant signals by turning it counterclockwise, or less distant signals by turning it back.

Manual Channel Selection

If you wish to select a channel manually, press and release the MANUAL key until that channel number appears in the display. You can also press the channel number, then the MANUAL key to directly access that channel.

Lockout

There may be times when you wish to skip over a channel that you have programmed into your Uniden® Bearcat® 50XL. Any number of channels can be "Locked Out" so that the scanner skips over them. To lock out a channel, select the channel number you wish to skip over. Press the LOCKOUT key. The word "LOCK OUT" will appear in the display whenever that channel number appears. To cancel the lock out mode simply press the LOCKOUT key when that channel number appears.

5 MANUAL

LOCKOUT

the display will show:

LOCK OUT 5

Scan

To scan the channels programmed in memory, press the SCAN key. The channels will automatically scan at the rate of approximately 10 channels per second. As the unit scans, the channel digits in the display will advance rapidly, indicating the scanning mode. In order to stop the scan mode, a transmission must be present on one of the programmed frequencies. The squelch control must also be set so that the transmission will "break squelch" and stop the scan. You can also stop scanning by pressing the MANUAL key.

Scan Delay

The Uniden® Bearcat® 50XL is automatically programmed to pause for about 3 seconds after a transmission ends on any channel. This is useful in preventing the continuation of scanning when there is a slight pause in transmission. It is also useful when both sides of a conversation are occurring on the same channel. This automatic delay is built into every channel and cannot be changed.

Error Message

To inform the user anytime and out-of-band frequency is stored in memory, the UBC 50XL automatically displays "E" in this event. The condition may arise when the user presses ENTER with an invalid number in the display. The user should simply enter an in-band frequency (see programming section) to clear the ERROR indication.

Helpful Hints

Battery Low Indication

Your scanner has a unique power-saving battery low indicator. When a special circuit detects that the batteries are getting low, a beep will sound if the unit is on. The beep tone will continue every 15 – 30 seconds until the batteries are completely dead. The memory will be maintained until batteries are dead.

WARNING: When you first hear the beep tone, you should turn the unit off and immediately replace your batteries to avoid losing memory. When you replace weak batteries, you must install the new ones immediately to keep the scanner memory. Be sure to read the "Installing Batteries" section of this guide before attempting to replace your batteries.

Helpful Hints

The following hints are provided to help you get the most out of your new scanner. By reading this entire guide, including this section, you will better understand and enjoy your new Uniden® Bearcat® 50XL.

1. Always remember to press the enter key when programming a frequency. If the enter key is not pressed the frequency will not be programmed into that channel. It is a good idea to press the review key after entering a frequency to confirm that the correct number was entered.

2. If you ever have to ship the unit, be sure to remove the antenna and place it and the unit in the original styrofoam inner packing and box. One of the most common causes of damage to electronic products is improper packing when shipping.

3. Remember that the liquid crystal display is subject to permanent damage if it is exposed to extremes in temperature or humidity. Take extra care with your scanner in the winter and on sunny, summer days.

4. The Uniden® Bearcat® 50XL never sleeps - its memory is always active even though the power is turned off. Battery drain in the off mode is almost as low as the discharge rate of the batteries alone. As long as you observe the battery low indicator and act accordingly, you shouldn't have any problem with memory loss.

5. Receiver sensitivity is affected by the location of the antenna and the environment that the unit is used in. Best reception will occur when the unit is placed on a level metal surface with the antenna pointing up. Placing the unit close to a window, will also provide better reception.

6. Receivers, such as the Uniden® Bearcat® 50XL, which have broad tuning ranges are subject to interference from internally generated signals ("Birdies") on a few receiver frequencies. On these frequencies, reception of external signals may be impaired. Nothing is wrong with your scanner if this kind of interference occurs, unless if happens on a large number of frequencies.

Trouble Shooting

If your Uniden® Bearcat® 50XL is not performing up to your expectations, please try these simple steps. If you still cannot get satisfactory results after reading this guide thoroughly and following the troubleshooting steps, you may need to send your unit in for service.

TROUBLE	CHECK
Unit will not turn on/ no power.	1. Batteries are not correctly installed – check and make sure the + and – terminals are properly aligned. 2. Batteries are dead – replace with new ones. 3. Power is off – turn the volume control on.
No reception/ poor reception.	1. Antenna is not correctly installed – check connector. 2. Environment is not suitable for scanner – relocate unit and try again. 3. Frequencies are not properly programmed – check and reprogram. 4. Batteries are weak or dead – replace with new ones.
"E" appears in display.	1. Programming error – check frequency and try again.
Beep tone sounds every 15 – 30 seconds.	1. Batteries are low in power - replace with new ones.
Keypad will not work/ cannot program.	1. Keypad lock is off – check and turn on.

Optional Accessories

The following accessories are available for use with your UBC 50XL.

Model PS 001 vehicle power cord. Plugs into vehicle cigarette lighter socket to power your UBC 50XL.

Model VC 001 carrying case. Leather-like carrying case holds your UBC 50XL safety on your belt. Controls are accessible and the unit can be removed and returned easily.

AC adaptor Connect the barrel type plug with center positive to the EXT PWR jack on your UBC 50XL, and plug the adaptor into a standard AC outlet.

Specifications

Size:	68mm (w) x 35mm (D) x 170mm (H)
Weight:	300g.
Cabinet:	High impact ABS
Power:	7.5 VDC provided by 5 AA size standard batteries (not included)
Antenna:	Custom designed flexible antenna with BNC connector.
RF Sensitivity:	Low band 0.4 μv for 12 dB SINAD High Band 0.7μv for 12 dB SINAD UHF Band 0.7 μv for 12 dB SINAD (typical midband, from 50 ohm source, E.I.A. method)
IF Selectivity:	−55 dB @ ±25kHz
Audio Output:	400 Milliwatts into 8 ohms
Frequency Coverage:	66–88 MHz 136–144 MHz 144–148 MHz 148–174 MHz 406–420 MHz 420–450 MHz 450–470 MHz 470–512 MHz
Scan Speed:	10 channels per second
Channel Capacity:	10
Delay:	3 seconds (automatic)
Lockout:	Any channel(s) (selectable)
Display:	Liquid Crystal
Accessories:	Belt Clip

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Memo

One Year Limited Warranty

WARRANTOR: SANTRONIC AGENCIES PTY. LTD. 13 Garema Circuit, Kingsgrove NSW 2208 ("SANTRONIC").

ELEMENTS OF WARRANTY: SANTRONIC warrants, for the duration of this warranty, its UNIDEN Product to be free from defects in materials and craftsmanship with only the limitation or exclusions set out below.

WARRANTY DURATION: This warranty shall terminate and be of no further effect one (1) years after the date of original purchase of the Product or at the time the product is (a) damaged or not maintained as reasonable and necessary, (b) modified, (c) improperly installed, (d) is repaired by someone other Warrantor for a defect or malfunction covered by this Warranty, or (e) used in a manner or purpose for which the product was not intended.

PARTS COVERED. This Warranty covers all components of the Products.

STATEMENT OF REMEDY: In the event that the Product does not conform to this Warranty at any time while this Warranty is effective, Warrantor will repair the defect and return it to you prepaid, without charge for parts, service, or any other costs incurred by Warrantor or its representatives in connection with the performance of this Warranty. In addition, if the Product contains a defect or malfunction which is not repaired after a reasonable number of attempts by Warrantor to repair the Product, the Product or defective component will at our discretion, be replaced without charge, when the defective product is delivered to the warrantor at 13 Garema Circuit Kingsgrove NSW 2208 free and clear of all liens and encumbrances. Please note that while the Product will be remedied under this Warranty without charge, THIS WARRANTY DOES NOT COVER OR PROVIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES.

PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY: In the event that the Product does not conform to this Warranty, the Product should be shipped prepaid, to Warrantor at 13 Garema Circuits Kingsgrove NSW 2208. THE ORIGINAL OR COPY OF THE SALES RECEIPT OR OTHER VALID EVIDENCE OF THE DATE OF THE ORIGINAL PURCHASE MUST ACCOMPANY THIS PRODUCT.

SANTRONIC
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